

REMARKS

Claims 1, 3, 5, 6, 9, 11, 13, 15, 16, 19, 21 – 23, 25, 26, and 29 are pending.

Claims 7, 17 and 27 have been cancelled. Claims 1, 11, 21 and 22 have been amended. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

The Examiner rejected claims 1, 3, 5, 6, 9, 11, 13, 15, 16 and 19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,751,109 to Doss et al. ("the Doss reference") in view of U.S. Published Patent Application No. 2005/0127758 to Atkinson et al. ("the Atkinson reference") and further in view of U.S. Patent No. 6,628,535 to Wu ("the Wu reference"). The Examiner rejected claims 1, 7, 11 and 17 under 35 U.S.C. § 103(a) as being unpatentable over the Atkinson reference in view of the Doss reference and further in view of U.S. Published Patent Application No. 2004/0075419 to Massey et al. (the Massey reference) and further in view of the Wu reference. The Examiner rejected claims 21 and 27 under 35 U.S.C. § 103(a) as being unpatentable over the Atkinson reference in view of the Doss reference and further in view of the Massey reference. These rejections are respectfully traversed in so far as they are applicable to the presently pending claims.

Claim 1, as amended, distinguishes over the Doss reference. The applicant has amended the claims to identify that the portable electronic device is a portable computer. Claim 1, as amended, recites:

An adapter device, comprising:
a DC/DC adapter, located in a casing external to a portable computer having a power supply, to receive DC power from an external DC power source, and output a regulated DC voltage (V_{out}) to the portable computer; and

DC source determination circuitry, in the adapter device, to receive the DC power from the external DC power source and compare a magnitude of a voltage of the DC power with a reference magnitude of a reference voltage (V_{ref}) in order to determine what type of external DC power source is supplying the DC power,

wherein when the magnitude of the voltage of the DC power is greater than the reference magnitude, a data signal (V_{data}) having a first value indicative of the external DC power source being an airplane power source is output to the portable computer along with the regulated DC voltage, and when the magnitude of the voltage of the DC power is less than the reference magnitude, the V_{data} signal having a second value indicative of the external DC power source being an automobile power source is output to the portable computer along with the regulated DC voltage.

The Doss reference does not disclose, teach, or suggest the adapter device of claim 1, as amended. The Examiner admits that the Doss reference does not disclose that the DC/DC adapter is located in an external casing (to the portable electronic device). The Examiner admits that the Doss reference does not disclose source determination circuitry to compare a magnitude of a received DC power with a reference magnitude to determine what type of external DC power source is supplying DC power. The Examiner also admits that the Doss reference does not disclose the outputting the data signal to the portable electronic device. (*Office Action, pages 3*). The applicant agrees with the Examiner and respectfully states that claim 1, as amended, distinguishes over the Doss reference.

The applicant disagrees with additional statements made by the Examiner. The Examiner is stating that the detachable battery pack 14 is the portable electronic device (*Office Action, page 3*). The applicant respectfully disagrees that one of skill in the art would consider a detachable battery pack a portable electronic device. The detachable battery back is a power source, as is described in column 2, lines 35 – 38 of the Doss reference, i.e., “the invention is a multiple input power converter 10 that can be

operated from any one of three mutually exclusive and external input power sources: a DC input, an AC input, or **a separate removable battery pack 14.**"

Nonwithstanding the applicant's disagreement with the Examiner regarding "portable electronic device", the applicant amended "portable electronic device" to recite "portable computer" in claim 1 and the corresponding independent and dependent claims. Accordingly, applicant respectfully submits that the Doss reference's disclosure of the detachable battery back 14 does not disclose the amended limitation of a portable computer, as is recited in claim 1.

The Examiner also states that the Doss reference discloses teaches sending a sensing signal via line 46 to the portable electronic device because the power-on signal 46 is sent to the detachable battery back 14 (which the examiner considers the portable electronic device). Nonwithstanding the applicant's disagreement that the detachable battery back is a portable electronic device, with the amendment to claim 1, i.e., amending "portable electronic device" to recite "personal computer", the sensing signal via line 46 in the Doss reference does not disclose the recited amended limitation of claim 1, e.g., **wherein when the magnitude of the voltage of the DC power is greater than the reference magnitude, a data signal (V_{data}) having a first value ... is output to the portable computer along with the regulated DC voltage.** Nor does the sensing signal via line 46 in the Doss reference recite the additional amended limitation of claim 1, e.g., **when the magnitude of the voltage of the DC power is less than the reference magnitude, the V_{data} signal having a second value indicative of the external DC power source being an automobile power source is output to the portable computer along with the regulated DC voltage.** Instead, the

Doss reference discloses only the output of two regulated DC output voltages via terminals 20 and 22 that users may use to power a variety of different user-connected mobile device(s). (*Doss*, column 3, lines 11 – 14 and column 4, lines 21-24). There is no disclosure in the Doss reference of **an output of the data signal along with a regulated DC voltage to a portable computer**, as is recited in claim 1, as amended.

The applicants note that the disclosure in the Doss reference of the mobile devices being connected to terminals 20 and 22 further illustrates that even the Doss reference does not consider the detachable battery pack 14 to be a portable electronic device. In fact, the disclosure of the Doss reference is “teaching away” from the detachable battery pack being a portable electronic device because there is no discussion in the Doss reference that the detachable battery pack 14 can be connected to a regulated DC voltage from terminal 20 and 22.

The Examiner utilizes the sensing signal via line 46 disclosure in the Doss reference as a suggestion (or motivation) for combining the Doss reference with the Atkinson reference because the Examiner states it would have been obvious to one of skill in the art to locate the comparator of the Atkinson reference in the adapter of Doss (12) because this is suggested by Doss via line 46 outputting the data signal and DC voltage to the portable electronic device (i.e., detachable battery pack 14) since rearranging of parts of an invention involves only routine skill in the art. (*Office Action*, pages 5 and 6). However, as noted above, the Doss reference is actually “teaching away” from the detachable battery pack 14 being a portable electronic device because the Doss reference discloses mobile devices (which are portable electronic devices) being coupled to terminals 20 and 22 of the adapter. The detachable battery pack 14 is

not coupled to either terminal 20 or 22 of the adapter. Teaching away from the art is a per se demonstration of the lack of prima facie obviousness. *In re Dow Chemical Co.*, 827 F.2d 469, 5 U.S.P.Q.2d 1529 (Fed. Cir. 1988). Accordingly, one of ordinary skill in the art would not combine the Atkinson reference with the Doss reference for the reasons noted above because there is no motivation to do so. Thus, the Atkinson reference and Doss reference are not properly combinable. Further, the Doss reference in combination with the Atkinson reference does not disclose the amended limitations of claim 1, i.e., **that the data signal and regulated DC voltage are output to a portable computer**. Accordingly, applicants respectfully submit that claim 1, as amended further distinguishes over the Doss / Atkinson combination.

The Atkinson reference by itself does not even disclose the highlighted limitation of claim 1, as amended. The Examiner states that the Atkinson reference discloses comparing a magnitude of the DC power with a reference magnitude and outputting a data signal having a first value indicative of the DC power source being an airplane power source and a second value indicative of the DC power source being an automotive power source. (*Office Action, pages 4*). However, claim 1 requires **outputting the data signal indicative of either an automobile power source or an airplane power source to the portable electronic device along with the regulated DC voltage when the magnitude of the voltage of the DC power has a certain value**. The Atkinson reference is disclosing only that a data signal is sent from a comparator in the computer system (the computer system being akin to the portable electronic device) to power management logic in the computer system (portable electronic device). There is no disclosure that the data signal is sent from the power

adapter along with the regulated DC voltage. The Atkinson reference cannot disclose transmitting data to a portable electronic device because all of the circuitry in the Atkinson reference is located inside the portable electronic device. Accordingly, applicant respectfully submits that claim 1, as amended, further distinguishes over the Atkinson / Doss references, alone or in combination.

The Examiner utilizes the Wu reference to disclose a power adapter comprising a casing for electronic components. (*Office Action, page 4*). The Examiner utilizes the Massey reference to disclose that power conversion circuitry 210 and logic circuitry R2 are located external to a portable computer. (*Office Action, page 15*). The applicant understands the Examiner's utilization of the Wu reference and the Massey reference. However, the applicant notes that neither the Wu reference or the Massey reference disclose an adapter device including a DC/DC adapter and DC source determination circuitry, **wherein when the magnitude of the voltage of the DC power is greater than the reference magnitude, a data signal (V_{data}) having a first value indicative of the external DC power source being an airplane power source is output to the portable computer along with the regulated DC voltage, and when the magnitude of the voltage of the DC power is less than the reference magnitude, the V_{data} signal having a second value indicative of the external DC power source being an automobile power source is output to the portable computer along with the regulated DC voltage**, as is recited in claim 1, as amended. Accordingly, applicant respectfully submits that claim 1, as amended, distinguishes over the Wu / Massey / Doss / Atkinson combination.

Applicant has amended independent claims 11 and 21 to include limitations

similar to claim 1. Independent claims 11 and 21, both as amended, recite limitations similar to claim 1, as amended. Accordingly, applicant respectfully submits that claims 11 and 21 distinguish over the Doss / Atkinson / Wu / Massey combination for reasons similar to those discussed above in regard to claim 1, as amended.

Claims 3, 5, 6, 9, 13, 15, 16, 19, 22 – 23, 25, 26 and 29, depend, indirectly or directly, on claims 1, 11, and 21. Accordingly, applicant respectfully submits that claims 3, 5, 6, 9, 13, 15, 16, 19, 22 – 23, 25, 26, and 29 distinguish over the Doss / Atkinson / Wu / Massey combination for the same reasons as those recited above in regard to claim 1.

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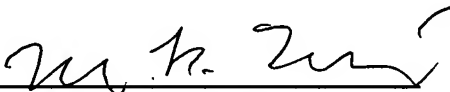
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Applicant believes that the claims are in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call either of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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